CHINOOK PASS ENTRANCE
(Tipsoo Lake Entrance Arch and Overpass Bridge)
Mount Rainier National Park
Spanning Mather Memorial Parkway at Chinook Pass
Longmire Vicinity
Pierce County
Washington

HAER No. WA-43

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
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I. INTRODUCTION

Location:	Spanning Mather Memorial Parkway at Chinook Pass, Mount Rainier National Park, Pierce County, Washington. Quad: Chinook Pass, Wash. UTM: 10/613210/5191830
Date of Construction:	1934-1936
Structure type:	Masonry and timber trail overpass bridge
Designer:	National Park Service, Branch of Plans and Design, San Francisco, California
Construction:	Emergency Conservation Works program, Civilian Conservation Corps
Owner:	Mount Rainier National Park, National Park Service
Use:	Entrance arch and trail bridge
Significance:	One of the most impressive gateways to a national park, the Chinook Pass Entrance is a bold example of the "rustic style" of architecture employed by the National Park Service. The log and masonry structure serves as an entrance arch defining the boundary of the national park, and also as a trail bridge carrying the Pacific Crest National Scenic Trail. The structure was designed by the National Park Service and constructed by the Emergency Conservation Works program, affiliated with the Civilian Conservation Corps, the massive Depression-era public works project.
Project Information:	Documentation of the Chinook Pass Entrance is part of the Mount Rainier National Park Roads and Bridges Recording Project, conducted in summer 1992 by the Historic American Engineering Record. Richard H. Quin, Historian, 1992

II. HISTORY

This is one in a series of reports prepared for the Mount Rainier National Park Roads and Bridges Recording Project. HAER No. WA-35, MOUNT RAINIER NATIONAL PARK ROADS AND BRIDGES, contains an overview history of the park roads. In addition, HAER No. WA-125, MATHER MEMORIAL PARKWAY, contains more specific information on the road on which the Chinook Pass Entrance is located.

Mather Memorial Parkway

The Mather Memorial Parkway (Washington Highway 410) enters Mount Rainier National Park near its northeast corner and follows the west side of the Cascade crest southward, climbing to Cayuse Pass (elev. 4,694) where it swings east and climbs to the Cascade crest at Chinook Pass (elev. 5,432) on the park's eastern boundary. This road, originally planned as a segment of "McClellan Pass" or "Naches Pass" Highway, was built by the State of Washington in the 1930s and subsequently renamed in honor of the first Director of the National Park Service, Stephen T. Mather. It provided easy access to the north and east sides of the park from Seattle and the first access from eastern Washington. Among its features are stone retaining walls, a scenic vista at the Mather Overlook, a picnic area at Tipsoo Lake, an open spandrel concrete arch bridge over Deadwood Creek [HAER No. WA-56], and an unusual log and stone overpass bridge and entrance arch constructed by the Civilian Conservation Corps at Chinook Pass. The highway runs through the park for a distance of 11.6 miles and continues as a scenic parkway north and east through adjacent national forest lands for a total distance of 75 miles.

Chinook Pass Entrance

In several of the national parks, impressive gateways demarcate the park entrance. The first was probably the 1903 Theodore Roosevelt Entrance Arch at the Gardiner, Montana, entrance to Yellowstone National Park. The masonry structure is patterned after a classical triumphal arch, and is inscribed "For the Benefit and Enjoyment of the People," language taken from the 1872 act which created this first national park. Although the hulking structure is most impressive, its classical form is too pretentious for its wild setting, and subsequent entrance structures were usually designed in the "rustic style" so as to harmonize with their surroundings.

A rustic timber arch at Mount Rainier's Nisqually Entrance was built in 1911.* Entrance pillars were featured at a number of Park Service units, including Zion and Lassen Volcanic national parks and Pinnacles National Monument. At some of the parks, natural features were incorporated into the entrances. In Yosemite National Park, Arch Rock, a short natural tunnel between two huge boulders, forms the entrance for the All-Year Highway [El Portal Road, HAER No. CA-150], built by the Yosemite Valley Rail Road in 1907 to connect its terminus with Yosemite Valley, and Tunnel Rock, a similar phenomenon, is one of the entrances to Sequoia National Park.

As the Mather Memorial Parkway would be the principal approach road for visitors from Eastern Washington and other points east, a decision was made to

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* The present structure is a 1970s replacement. Copies of this structure were also employed at the park's northeast, Carbon River and Ohanapecosh entrances.

construct an entrance arch at the Chinook Pass boundary. As the road neared completion in 1931, Park Superintendent O. A. Tomlinson wrote Thomas C. Vint, Chief of the National Park Service's Landscape Architecture Division, asking him to prepare plans for a sizeable development at Chinook Pass and nearby Tipsoo Lake. Tomlinson wanted an entrance arch, a ranger station, 200-car parking lot, a picnic area, water supply system, community kitchen and comfort station. Tomlinson suggested that the entrance arch should be of stone construction, or at least featuring stone columns.[1]

Work began in 1933 with the construction of two timber frame and masonry comfort stations at Tipsoo Lake (only one of these survives) and the adjacent parking lot and picnic area. The picnic area work did not include the proposed community kitchen, but two masonry fireplaces were provided. (These are no longer extant, and open fires are prohibited.) A natural spring was dug out and a stone "bubbler" type water fountain was constructed. (It, too, is gone). Labor on the projects at Tipsoo Lake and Chinook Pass was provided by workers from the Civilian Conservation Corps, the massive Depression-era public works projects.

The entrance arch was also approved, and in 1933 plans were drawn up by the Branch of Plans and Design. Instead of another log portal or Tomlinson's suggested columned gateway, the division's landscape architects decided to make use of a highway cut and designed the entrance structure as an overhead trail bridge. This would carry a section of the new Cascade Crest Trail, then under development, over the road, assuring the safety of trail riders and allowing uninterrupted passage of vehicular traffic below. The entrance would consist of heavy masonry pier-type abutments supporting heavy cedar log stringers. Flagstones would lead to the approaches, and the deck would be floored with wooden puncheons. The beveled ends of the stringers would offer a "whittled" appearance enhancing the rustic design.[2]

Budget considerations delayed the start of construction of the entrance until August 1934. Workers from Emergency Conservation Works Camp No. 3 at White River built the structure. Most of the workers were untrained youths working under supervision of the park staff, and considerable delays were encountered. An average of fifteen men worked on the project. Construction equipment included a concrete mixer, a 1 3/8-yard shovel, two 5-ton trucks, a caterpillar tractor, and logging equipment. Stone for the project was obtained from rock cuts at several different locations on the Mather Memorial Parkway. Cement and sand was hauled from Enumclaw, the nearest railhead, 45 miles from the project. The logs were obtained from the dense stands along the White River lower down on the parkway project.[3]

In August 1936, National Park Service Associate Engineer C. E. Drysdale reported the work was going slowly on account of the lack of trained masons. Evidently, progress improved, as a month later, park landscape architect J. Haslett Bell reported the entrance was nearly complete. Bell made a stencil for the sign and engaged a carver to do the work.[4] This original sign, lettered "Mount Rainier National Park," was carved into the lower stringer.

The structure has been little altered. A wooden signboard with rustic letters, attached to the lower stringer, now displays the park name; it evidently covers the original carved lettering. The arrowhead logo of the National Park Service is now displayed on the right pylon on the east side, and the shield logo of the U.S. Forest Service appears on the right pylon on the west side, where another signboard announces the "Wenatchee National Forest."

The 445-mile Cascade Crest Trail was completed in 1941. On 2 October 1968, it was integrated into the new Pacific Crest National Scenic Trail which provided a north-south route along the crest of the great mountain ranges of the far west, principally the Cascades and the Sierra Nevada.[5] The trail traverses along the east boundary of Mount Rainier National Park and crosses the overpass bridge at Cayuse Pass.

In 1966, the Pacific Northwest Regional Office of the U.S. Forest Service (U.S. Department of Agriculture) designed an observation point and two parking areas for a location immediately east of the entrance. The upper parking area, on the northeast side of the road, contains spaces for eighteen cars and features an outstanding view down the east slope of the Cascade Range. The parking area is bordered with stone walls atop a slope of exposed aggregate. An interpretive sign provides information on the high mountain terrain. A larger development a little further down the road is designed with parking for users of the Pacific Crest Trail. It features parking space for sixteen cars, seven trucks and two buses. A hitching post and a horse unloading ramp are provided for pack trail users. A single-building pit toilet is located at the north end of the parking lot. A developed spring on the hillside above the area provides water for the comfort station.[6] As no parking is provided at the Chinook Pass entrance, the two lots receive considerable use both from trail users and from visitors who want to inspect or photograph the entrance.

Description

The structure measures 90' long from end to end and stands 14-17' over the roadway. The bridge deck rests on two peeled cedar log stringers, each 36" in diameter, separated by two 3' 6" long log spacers with a diameter of 18" and notched at their ends to fit the stringer logs. The deck is comprised of replacement 4" puncheons or split planks. Two more massive logs, 30" in diameter, act as guard rails.

The stonework is bedded in cement mortar. Face stones are of variable size, and considerable care was taken to use weathered stone for a more rustic appearance. Larger stones are used near the base, decreasing in size towards the top, though the corner stones and cap stones at the top of the abutments are again somewhat larger. All stones are laid with the longer face horizontal. Most are five-sided; the specifications forbade the use of spalls or hexagonal stones. Mortar joints are from 1" to 1½" wide and are raked 1" deep. The abutments rest on larger stone bases and their walls are constructed on a 1:12 batter. A stone wing wall extends from the north side to an earthen fill which carries the trail; the south abutment is built hard against the rock face of the road cut.

The entrance is located on a sweeping superelevated curve at the crest of Chinook Pass at an elevation of 5,432'. This is a subalpine zone, dominated by subalpine fir (*Abies lasiocarpa*) and whitebark pine (*Pinus albicaulis*). In summertime, expanses of mountain flowers, including avalanche lilies (*Erythonium montanum*), subalpine lupines (*Lupinus latifolius* var. *subalpinus*), magenta paintbrush (*Castilleja parviflora* var. *orepola*) and "Mouse-on-a-Stick" (western anemone, *Anemone occidentalis*), carpet the landscape around the structure. Interpretive signs near the overpass explain the unique features of the subalpine environment. Numerous hikers use the trail, and motorists cross under the bridge from late spring until the onset of winter; the rest of the year, the road is often buried deep in snow.

The structure appears in the park's *List of Classified Structures* as #TL-301. It is listed in the National Register of Historic Places as part of the

multiple resources listing for the historic resources of Mount Rainier National Park.

III. ENDNOTES

1. Erwin N. Thompson, *Mount Rainier National Park, Washington: Historic Resource Study* (Denver, CO: National Park Service, Denver Service Center, 1978), 162-63.

2. U.S. Department of the Interior, National Park Service, Branch of Plans and Design, "Chinook Pass Boundary Marker and Trail Overpass, Mt. Rainier National Park," construction drawing R-3049, 1 sheet (San Francisco, CA: National Park Service, Branch of Plans and Design, 23 August 1933). Engineering Division files, Mount Rainier National Park; "Overpass--Tipsoo Lake, Mount Rainier National Park," construction drawing R-3428, 1 sheet (Mount Rainier National Park, August 1933). Mount Rainier National Park Archives, File D30, Chinook Pass Entrance.

3. R. D. Waterhouse, Engineer, National Park Service, San Francisco, CA., "Final Report on Tipsoo Lake Overpass Bridge and Boundary Marker, Project No. F.P. 198.8—1933 P.W.; E.C. 505B-1934 E.C," typed MSS, 21 January 1935. MORA Archives, File D22, Construction Program 1935.

4. C. E. Drysdale, Associate Engineer, National Park Service, Engineer's Report, August 1936, 2; J. Haslett Bell, Resident Landscape Architect, Mount Rainier National Park, Resident Landscape Architect's Monthly Report, September 1936, 2. MORA Archives, File H2615, Employees' Monthly Reports 1936 file.

5. William R. Gray, *The Pacific Crest Trail* (Washington, D.C.: National Geographic Society, 1975), 10.

6. Richard W. Simmons, Regional Technician, U.S. Department of Agriculture, U.S. Forest Service, "Site Plan, Chinook Pass Observation Point, Sec. 14 T16N, R10E, Wash.," construction drawing NFRS No. 138 (Snoqualmie National Forest, WA: U.S. Forest Service, May 1966).

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--"Overpass--Tipsoo Lake, Mount Rainier National Park." Construction drawing R-3428, 1 sheet. Mount Rainier National Park, August 1933. Mount Rainier National Park Archives, File D30, Chinook Pass Entrance.

Waterhouse, R. D., Engineer, National Park Service, San Francisco, CA. "Final Report on Tipsoo Lake Overpass Bridge and Boundary Marker, Project No. F.P. 198.8—1933 P.W.; E.C. 505B-1934 E.C. Typed MSS, 21 January 1935. MORA Archives, File D22, Construction Program 1935.